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# Hayat-Sohag Voices



التنمية الاقتصادية المحلية الشاملة والمستدامة  
Inclusive and Sustainable Local Economic Development



# Hayat: Opening the window to economic opportunity

Just a few years ago, in the Upper Egypt region of Sohag, unemployment was sky-high, especially for young people and women, poverty was rampant, infrastructure was lacking and human capital investment was thin. For many residents, the future looked dim.

And yet natural resources in the region abound. The growth capacity of local industry, in particular agriculture, was there. So was the motivation among residents to seize innovative new opportunities.

Drawing on government, the private sector and local communities, the Hayat project, initiated in March 2017, has harnessed this human, natural and economic potential, enhancing opportunities, notably for youth and women, in line with the investment priorities of the Sohag Governorate.

“I realised I could fight for my dream and that it was achievable,” says Dr. Amina, a young female beneficiary of the training programme.

The project, designed to promote comprehensive and sustainable local economic development, through a variety of differently-themed entrepreneurial programmes and trainings, was implemented by UNIDO in cooperation with the Ministry of Local Development and the Sohag Governorate, with funding from the Swiss Agency for Development and Cooperation.

From pioneering female vets, to agriculture students cultivating thousands of seedlings in cutting-edge greenhouses, from woodworkers furnishing the homes of young married couples to clothing sold via Facebook, here are some of the many success stories the project tells.





# A first for Upper Egypt: Three female vets

When Amani Abdel Rahman, 30, graduated as a veterinary doctor from Sohag University, she knew what the future didn't hold: working as a vet in the fields. Most livestock owners think women can't handle the animals. And so, for five years, Dr. Amani did what all female veterinary graduates in the region do: she worked for a pharmaceutical company.

Then came the Hayat project.

"The Hayat project turned my life upside down," she enthuses. "When I attended their trainings one and a half years ago, it was like a new window opened. I realised I could fight for my dream and that it was achievable." She adds: "It gave me the chance to acquire my primary asset: experience." The Hayat project has improved veterinarians' capabilities, so they can help farmers capacity-build in animal husbandry, by for example preventing the spread of foot-and-mouth and lumpy skin disease.

Two years ago there wasn't a single woman working in the treatment of livestock in Sohag nor indeed in the whole of Upper Egypt, where livestock owners say vets should be men because surgery and other procedures are complex and require significant physical exertion. So the first thing Dr. Amani and her colleagues Umniah Salem and Marwa Abdel Samie - partners in the mobile health unit they launched - was to win over the skeptical farmers. The Hayat training took care of that.

"The Hayat training refined our expertise, and made us more capable and aware of the diseases that affect livestock in Sohag. "Initially, we simply dropped in on livestock

owners to introduce ourselves and our mobile health unit, which we've called Al-Bitar. Of course, there was doubt and even suspicion at first. But that didn't discourage us. "The golden opportunity to prove our capabilities came when a farmer's wife was forced to seek help after her buffalo got sick, and her husband wasn't in town. She preferred to call a female doctor because of social customs."

The success of Dr. Amani and her colleagues in treating the farmer's wife's buffalo gave them confidence, and spawned trust among livestock owners.

"The Hayat project gave us the chance to apply what we learned at university, in the field - something we weren't able to do after graduating," says Dr. Amani. "With the Hayat training course, we were able to easily apply procedures such as IVF, perform surgery, childbirth and genital treatment.

"Our story with the farmer's wife took the villages by storm, and within a few months the farmers often preferred to interact with us. They assigned their wives the task of talking to us and called us to treat their animals. In some cases, they even left us alone at home with their wives, while they went off to tend their crops, confident we'd do a great job." Dr. Amani adds: "When they call us for livestock births, farmers prefer to be with us for that. They help us catch the animal and make sure it doesn't get away. And the pace is still picking up.

"In the first months, our activities were limited to villages like Awlad El-Shaikh, Awlad Yahya,

Jazirat Shandawil and Ad Dababat but the Hayat project supported our expansion across the whole Sohag region, especially in Dar El-Salam, a village known for its conservatism, and where it's difficult to find recognition of a woman's right to work. But we have built up a very good reputation and a lot of farmers work with us." The breadth of professional interaction is growing too.

"Our relationship with livestock owners isn't limited only to treating their animals," notes Dr. Amani. "We provide economic support, as well as advice on saving fodder, disease detection, treatment and follow-up. So we've gained confidence. That's what we learned from Hayat."

The conversation is interrupted by Hajj Khalaf Othman, 60, who owns a farm with 30 heads of cattle. "I used to have a big problem with my buffalos before I dealt with Dr. Amani's unit," he declares buoyantly. "The livestock had a weak appetite, it was affected by insects and rodents, it was permanently weak and there were often deaths. But after we dealt with Dr. Amani and she advised us on fodder, we noticed they're now in good health."

The Al-Bitar unit, Hajj Khalaf adds, also helped with vaccinations. And now his finances are doing better too. "When I contact her, she's here within minutes," he concludes.





# Pioneering Sohag University agriculture students go green(house)

In 2019, Ahmad Jaber, 23, Abd al-Rahman Ibrahim, 22, and Hassan Youssef, 24, agriculture students at Sohag University, went on a field trip to Alexandria.

They visited several greenhouses and large nurseries on the Cairo – Alexandria road as part of a Hayat project to provide theoretical and practical training on establishing greenhouses and protection measures.

For the three students, the trip was a life-changing experience. They decided to set up a joint venture to produce grafted seedlings in their own greenhouses in Sohag.

“At college, we had only theory,” says Jaber. “We weren’t able to really study greenhouses, but the Hayat project helped us increase our knowledge about building greenhouses, and preparing agriculture trays. And on the trip to the nurseries, we saw it in practice. We had the opportunity to apply the practicalities of what we had studied, the various stages of producing seedlings, from the preparation of the appropriate agricultural environment and sterilization rooms, to production.”

As a first step, Ibrahim has already prepared a place on the roof of his house, for the first

greenhouse, to produce cucumber zucchini and pepper seedlings. “What I gain from this small greenhouse will increase my capital,” he says.

Youssef meanwhile believes he can persuade his siblings to participate in the establishment of the first greenhouse in their village, so residents don’t have to travel to the city to buy seedlings.

“My brothers are farmers,” he explains, “and like others they often lose the seedlings bought in the city because of the bad transportation conditions and the heat during the long trip.” He adds: “We can use the university’s nursery to produce the seeds, and then transfer them to our greenhouse.

Youssef says he’s going to oversee seedling growth and marketing. “One of the most important things I studied in the Hayat training was to create links with farmers, especially those in our village, to convince them to go for protected cultivation or greenhouse agriculture, as opposed to traditional agriculture,” he notes.

“Greenhouse give a bigger crop, protect the plant from fluctuations in the atmosphere and generate more profit. Farmers should switch to it as soon as possible.”



# Sohag Secondary School girls give street a "facelift"



To be entrepreneurial, Afkar Ahmed, 49, a teacher at Sohag Technical Secondary School for Girls told her students, you're going to need to interact with the public.

Then she involved them in an initiative to clean up the street in front of the school.

Afkar's "Be a Pioneer" project aims to help students overcome a reticence in dealing with society at large inculcated through conservative traditions according to which interacting with strangers is frowned upon.

"They need to discover themselves, elicit their talents and abilities, and gain courage in dealing with the public," she says.

Afkar came up with the idea as one of the first teachers trained by Hayat to deliver entrepreneurship education.

Thirty-seven female students descended on the street with cleaning tools and hygiene kits for the roadside stores, urging everyone to embrace the spirit of communality in a quest for a cleaner, more aesthetically pleasing look.

Not everyone was happy, notes student participant Amina Faraj.

"Some passers-by and some people in the street ridiculed us, especially on social media," she acknowledges.

But Amina and her friends had been warned by Afkar that entrepreneurial interaction with the public can come with challenges.

"I noticed that I was able to face the criticism and frustrations," Amina declares.

"We proved to them that the principles of entrepreneurship are to generate new ideas that serve society, promote courage, achieve the principles of cooperation and coexistence with the environment, and who the benefits of working in a team."



# Loofah training helps local women generate independent income

The village of Bani Harb is renowned for its loofah cultivation.

For centuries, loofah farmers there have harvested the crop and sold it – without commercial preparation – to the local markets, or to merchants in the capital at low prices.

But loofah can also be used to make personal care products, such as sponges, and other items, like gloves.

So a Hayat training course has taught local women how to do exactly that.

The training was held at Upper Egypt's first plant to create loofah-derived products – which Hayat helped set up. The plant's manager, Safaa Ezz Al-Din, 40, says 15 village women of all ages joined.

"The project not only helped us with the costs of the machinery," she says, "it also, most importantly, provided a trainer to give us technical training courses, which taught women in the village the stages of production from scratch.

"We didn't know how to use a pair of scissors, or operate a machine," she adds.

And the training quickly bore fruit.

"The happiest moment of my life was when we sold our first order to a merchant who was impressed by the quality of our production, and ordered almost 2,000 of our loofah products.

"That order encouraged the women to work more, and it was easier for them to then persuade their husbands or fathers to let them work in the plant rather than to allow them to approach the open job market."

So helpful was the Hayat marketing training that they have participated in exhibitions in Saudi Arabia, further building their reputation.

And since some of the women working in the plant are the wives of farmers who buy and sell the better product at a higher price, the increased return benefits not only the plant but the wife's income too.

"I now stand tall," declares Hoda Attiah, 45, the oldest loofah worker at the plant, triumphantly. "I can spend on my children.

"The training sessions made us qualified, and provided opportunities. Each of us now has a source of income that we can dispose of as we wish."



# How do you teach entrepreneurship? Sohag teachers find out in Hayat courses – and reach 2,500 students with what they’ve learned



Not so long ago, Badria Al-Sayed, 45, a teacher at the Sohag Technical School for Girls, knew nothing about the notion of entrepreneurship, let alone entrepreneurship education.

But then a Hayat course, in cooperation with the Ministry of Education, trained teachers like Badria to apply entrepreneurship curriculums, methods and principles, in a bid to promote innovative thinking and motivate students to one day start their own business.

Students are encouraged to come up with creative ideas, and formulate them in practical projects, in particular those linked to their surrounding environment and resources, taking into account what the community needs.

Many of Badria’s students have already kicked off small projects. One group of girls, for example, is recycling cooking oil as soap.

“It is better for societies to teach approaches to entrepreneurship that start by focusing on the individual, and their intellectual and creative abilities, rather than on the problem of financing,” Badria says. “What the Hayat project provides to students opens the door to research, experimentation, the rectification of errors, and the achieving of targets, all the way to creativity

and innovation. This creates a generation of entrepreneurs.”

Siham Abbas, 45, one of the most recent attendees of a Hayat entrepreneurship teacher training course, says it was also a good idea to honor the distinguished winners of a small-student-project competition among the girls who participated in the entrepreneurship classes.

“It had a great impact,” she states, “and it encouraged those who hadn’t already registered for the classes to emulate their student colleagues.”

A bonus is that the entrepreneurship class doesn’t have a final exam; grades are based mainly on activities and practical training.

“Since I started teaching entrepreneurship classes, I feel like I have a complete message for students,” Siham says. And she adds: “We were surprised as teachers that students continued their projects during summer vacation, to develop their ideas, and at their enthusiasm to invest in them after they graduate.

More than 100 teachers from technical schools in Sohag have received training on how to integrate entrepreneurship education into curricula, reaching more than 2,500 students.



# For a girl who discontinued school, a loofah workshop provides hope



A girl quits school. The future doesn't look bright.

But a Hayat workshop provides a glimmer of hope.

Nada Sayed, from the village of Bani Harb, is 18, and where, because of a discontinued education, there was uncertainty, now there is a steady job, following her attendance of a loofah manufacturing course offered by Hayat.

"I did not complete my education at school," says Nada. "But the workshop here gave me the opportunity to work. Through Hayat, I learned how to prepare loofah products for export and sale.

"My future has become clearer," she adds. "I had the basics in reading, writing, arithmetic and humanities, through compulsory education, but now I am learning a craft through which I will be able to spend on myself and help my family. It's great what I've learned here."

Loofah is a crop with high commercial value and a generator of handsome profit margins – if it is properly processed for sale and export so it can be used for bath brushes and furniture filling.

Those very processing skills and resources, though, had been lacking in Sohag – until Hayat stepped in with loofah manufacturing and processing training. The courses instruct farmers in modern cultivation methods that promote size and maturity, priming the loofah for lucrative export. They're also taught the principles of planning, marketing, managing and quality measurement.

"I learned a lot from the courses," says Nada, "especially after the project sponsored a trip to Alexandria, so we could visit the big loofah factories there."



## Hayat course teaches local farmers how to dispose safely of empty pesticide containers

Pesticide containers aren't just dangerous when they're full. They're dangerous empty too.

Reuse can lead to poisoning. Inappropriate disposal in fields can pollute soil and groundwater.

That's why a Hayat course explains to farmers how to dispose of empty pesticide containers and packaging safely.

The course is a prelude to a pilot programme for managing pesticide container disposal in cooperation with the Egyptian Agricultural Pesticides Committee and the Agriculture Ministry.

Pesticide applicator Ayman Mahmoud, 31, sprays loofah farms in the village of Bani Harb. He says the number one danger the course warns about is reuse and improper storage of pesticide containers and packs containing residue. Improper storage may cause disease and fires, especially when indoors (quite a few people even store the containers under beds).

"The place of storage in homes is usually under the bed," Ayman says. "The toxic fumes rise and can poison the inhabitants of the house."

One house in his village, he says, caught fire when a pesticide container with residue in it was placed near a stove.

"The correct way to get rid of these containers and packs is by shredding, burying or burning," Ayman states. "The containers and pesticide residue should never be dumped, especially near rivers, canals, or any waterway at all, because the residue can drain into the soil and poison fish, animals and people."

One of the worst things farmers can do, the course warns, is reuse pesticide containers or packaging for the storage of food or drink.

And they should also avoid disposing of them in the garbage, which can endanger not only the garbage collectors but also foraging animals.



# For rural Sohag women and girls, course on how to handle safely pesticides can be a life-saver

All of the nearly 30 women and girls packed into a Tahta training centre classroom know that pesticides are dangerous. They have heard of people dying. And they're afraid for their own safety.

What they don't know is the specifics of how to spray pesticides, or dispose of empty pesticide containers and packaging, safely.

The Hayat course they are attending is changing that.

During a break, course attendee Azza al-Sayyed, 38, says learning how to safely wash clothes worn during spraying is especially helpful.

The husband of another participant, Shaimaa Mohammed, 36, owns a poultry farm, and sometimes used pesticide to deal with the risk of infection from insects.

"At night we'd sometimes wake up with coughing fits," she says. "Here I've learned that was because we were storing empty pesticide packaging beneath the bed. We could have been killed."

Trainee Safa Abdellah, 42, acknowledges she used to exchange with her neighbors pickles and dairy products stored in old pesticide receptacles, and that a year ago the father of one of those neighbors got cancer, which he's still fighting.

"Maybe re-using the pesticide containers caused the disease," she worries. "I've learned in this course that we need to change how we handle pickled vegetables and dairy products so we don't harm ourselves."

Dr. Alaa Khorshid, 56, a researcher at the Agricultural Research Centre, who gives lectures as part of the training, says he's astounded by the level of interest and enthusiasm.

"I see old women coming from Jazirat Shandawil, more than an hour away," he says.

And he adds: "Most of the trainees are rural women, which means they'll pass on what they have learned here to their neighbors and friends."

Dr. Alaa also underscored another few pointers offered during the training: Don't use agricultural pesticides for household insects; make sure the person applying pesticides wears protective clothing even if this is self-manufactured; and don't adulterate the pesticide.

These trainings are critical he notes. And they're the first offered to women from rural areas.

The daily absence rate of less than one percent shows they've hit a powerful chord.



# Female agriculture student has big greenhouse plans, after Hayat entrepreneurship class



Last year, Shaima Ahmed, 21, an agriculture student in her final year at the University of Sohag, attended a course on nursery management and grafted seedling production, part of Hayat's entrepreneurial development programme.

This year she's already her own boss.

"The two courses contributed to shaping my awareness," she says, "and encouraged me to start my own project."

Using the entrepreneurial principles acquired in the training, she came up with the pioneering idea of setting up the first grafted seedling greenhouses in the Sohag city of Tahta, where she lives.

"I first started my project on the roof of my house," Shaima says, "with a greenhouse of eggplant and tomato seedlings.

"The results were so good," she adds, "I decided to expand the project together with two friends."

She says her dream is to establish a greenhouse as big as the one set up by Hayat near her university.

"The advantage of seedlings," Shaima explains enthusiastically, "is they give good results fast. You can harvest in 15-25 days."

She's confident there will be plenty of demand from local farmers.

For the moment, "farmers in Tahta have to travel to Sohag to obtain seedlings and because of the travel conditions and hot weather, many of the seedlings are degraded or dead on arrival.

"Buying seedlings from a nursery nearby will cost them less because it saves transportation costs and keeps the seedlings in good condition. The closer to the fields the nursery is the better."

Now it's Shaima's turn to encourage the entrepreneurial spirit of others.

"I hope the village youth will create more greenhouses," she says. "They offer a guaranteed profit, save a lot of time and energy, and produce wonderful agricultural results."



# Young Sohag entrepreneurs work second-life magic on clothes and furniture

Rising prices in Sohag have heightened the need for resource waste reduction, recycling and reuse.

And Suhaila Salah, 16, a student in her final year at Sohag Technical Secondary School for Girls, likes to design.

A fortuitous combination, because now Suhaila is designing new clothes out of old ones collected from neighbors and friends.

Her enthusiasm has infected her brother and his friends. They're marketing her freshly-designed clothes on Facebook and other social media sites, interacting with customers whose eye has been caught by Salah's magic.

"They're [also] looking at how I can participate in clothing exhibitions that are held every year in the governorate," Suhaila adds energetically.

The success of her project has Suhaila

dreaming of joining the Faculty of Fine Arts of Sohag University and even moving to the big, bright capital – where the sky is the limit.

Meanwhile, Suhaila isn't the only young female entrepreneur generating attention in Sohag.

A team of young ladies is re-designing used furniture for folks with limited budgets, especially among newly-weds.

"We have high ambitions," says Jihad Rushdie, 16, the leader of the team. "Our project is already well-known among our friends and neighbors."

Hasna Jamal handles marketing.

"The target consumers are newly-weds," she confirms. "They understand our recycling concept, admire it, and appreciate the appropriately low pricing."



# Hayat-trained teachers introduce ‘entrepreneurship’ curriculum – and it’s a roaring success

Omar Abdel Rahman Nazer, 57, a technical school principal in Sohag, waxes lyrical about the Hayat-led introduction of ‘entrepreneurship’ classes into his school’s curriculum.

“It is a step to put them on the right path, whether for their future or the future of Upper Egypt,” he states.

The integrated, practical and systematic methods being applied will, Omar is sure, blossom as projects down the road “with a tangible impact on Sohag society”.

The entrepreneurship classes are being taught by teachers who’ve attended Hayat entrepreneurship curriculum training.

And they’ve proved wildly popular.

“The turnout is over 90 percent,” enthuses Omar, “because the students like the teaching method and are able to express their ideas and interact with their colleagues and teachers.”

The classes are already bearing fruit.

One enterprising group of students has set up a workshop to manufacture children’s clothes. Omar celebrated the first production batch together with them.

The popular entrepreneurship classes have triggered a broader positive knock-on effect too.

“The overall attendance rate has increased to more than 80 percent,” says Omar. “It used to be 25 percent. And the school success rate has risen too, to 70 percent.

“Encouraging students to generate new ideas and enter the job market, they become new personalities, who strive to work, and try to improve themselves.”

Of course, he concludes, not everyone will become an entrepreneur. But the entrepreneurship curriculum is still having a positive impact on the personal and professional lives of young people.

“Everyone has a project,” he muses. “No matter how small.”





# A Hayat course changed my life and made my son a champion'

When Leila Farag's husband passed away, she found herself left with four children half way through their schooling.

Then a Hayat course helped her set up a small business with home units to raise poultry for sale.

Leila had always raised chickens at home, but the Hayat course – part of an initiative to encourage Sohag women to help develop the region's poultry sector – carried her into the next league.

“Through the courses I learned how to use leftover food as fodder for chickens, also what the right diet is for them, and how to keep them strong and healthy,” she explains, “so they don't get sick and die.

“And they encouraged me to heighten my ambitions and start raising poultry professionally.”

It was Hayat that gave Leila the confidence to start raising chickens not just for her own use, but for sale – thereby generating her own income.

“I didn't have any money,” she recalls, “but I saved a little, and started my project with just 250 Egyptian pounds and 10 chicks.

“When none of them died, I sold them all, and with the profit bought 50 more. And I set up a proper place with proper lighting and heating and all the right equipment. I started a real project,

learning as I went.”

Leila quickly and enterprisingly moved from red to white poultry, again thanks to the Hayat training.

“I learned during the training that the costs of raising white poultry are lower,” she notes, “and that the profits with white poultry are higher.”

Now almost 50, Leila remembers how the move changed her life and that of her family.

“A steady income helped me and my children a lot. It gave my oldest son the possibility to fulfil his dream and travel to the capital and study physical education and sports at a good university. Now he's one of the country's most famous swimming coaches.”

Has she reached the limit of her ambitions?

Certainly not.

Leila is now considering raising quail, but first she's going to “study the market” – just as Hayat taught her.



# From a lost crop, to a prime export deal: Hayat training turns Sohag onion farmer's fortunes right around



For years, Sohag onion exports to the European Union had been dropping.

So Hayat stepped in to help lift them again.

How?

By training farmers in the latest cultivation technologies, and encouraging them to switch to higher-quality onion varieties, notably Sabaaine, for which the soil of Sohag is eminently suited, and new varieties, such as red onions. By training them to detect – and combat – crop pests early on, so they don't threaten the whole crop. And by equipping them with the general knowledge to grow really prime onions.

Rifaat Ali Ahmed, 60, a farmer in the Sohagi onion heartland of Dar Al Salam who's attended the training says:

"The most important thing I learned in the Hayat courses is developing my abilities to distinguish seeds, knowing what is good, and what may produce plants that have problems growing.

"Immature and bad seeds caused me big losses two years ago. The whole year's crop was spoiled, because I unknowingly bought

sub-par seeds. We couldn't sell any of the onions and had to throw them away near the mountain.

"My sons and I were very upset. All our efforts throughout the season were for nothing, and we'd incurred the costs of planting."

But because of the Hayat training things are suddenly looking up for Rifaat and his fellow onion farmers.

"This season is the first after the Hayat training," he observes. "The advice I received during the course encouraged me to grow more, and it was the right decision. I sold the whole crop before it was even harvested.

"And," he adds happily, "the harvest was double the size, due to the low percentage of rotten onions, and the onions were better quality, they didn't have the kind of problems that make them more difficult to export, such as thick necks, early flowering or double heads."

Rifaat sold the whole crop to a trader who exports to Italy, one of the top export markets.



# For onion cultivation, traditional clumps or modern lines? Definitely lines, say Hayat trainers

Almost 700 Sohag farmers have now benefited from Hayat training on best agricultural practices, including cutting-edge onion cultivation methods that improve productivity, increase efficiency, ameliorate quality, and reduce costs and crop waste – ultimately augmenting income.

A key aspect of the training, notes Dr. Rifaat Allam, 49, a consultant on a Hayat project to promote the production of exportable spring onions, was encouragement to grow the onions in lines, rather than clumps – a traditional method favored by Sohagi farmers for centuries, but one that costs more. The clumps method involves hiring skilled workers to make holes in the ground with pointed iron pegs, sow the seedlings, and then fill in the holes by hand. Not only the planting is complex, but also the harvesting, because of the iron pegs. It's also a method associated with high plant density, high levels of nitrogen, and smooth, elongated plants that pre-ripen – all of which brings down both harvest quantity and quality.

The new method encouraged by Hayat saves water and doesn't require skilled planters – two of the main reasons the costs are lower.

More than 570,000 tons of onions are produced in Sohag every year, Dr. Rifaat notes, contributing a sizeable wedge to the regional economy. Quality-wise, Sohag onions are regional leaders, and they ripen early – meaning they have a head start into the European onion import market.

The project has also helped farmers deal with pests which damage crops every year, and has advised them on how best to irrigate to reduce the quality-stifling growth of grass around the crop.

And, importantly, since the ultimate goal is higher-income-generating export, the farmers have been taught how to store, transport and generally prepare the onions for that process, so they reach the faraway end-consumers in the best possible condition.



# Sohag farmer: Hayat pesticide applicator training has boosted my income 400%



Hayat training for pesticide applicators has ensured income stability for over 100 households in Sohag.

In addition to know-how, participants receive a certificate of accreditation – which helps gain the confidence of farmers now more likely to allow the spraying of their land.

“Before I received the Hayat training, I used to spray any pesticide onto any crop in any quantity,” acknowledges 41-year-old pesticide applicator Ahmed Youssef. “But now I know how to determine which pesticide the crop needs, and how often it should be sprayed.”

The courses, administered in cooperation with the Agricultural Pesticides Committee of the Ministry of Agriculture, teach applicators how exactly to spray the pesticides, and instruct them on degrees of toxicity, safe handling and timing.

“I can now also determine which pesticides should be sprayed on the ground and which ones should be sprayed on the plants themselves,” Ahmed says.

The farmers were astonished at the positive effects.

“They thought I’d put some kind of hormone in the pesticide, because the plants grew immediately after application.”

Ahmed has already completed 17 pesticide applications this year, including to his own loofah crop.

“Before the training, I used to sell one loofah for three or four Egyptian pounds. The loofahs were small and looked damaged. But after spraying the calcium spray as I learned with Hayat, I can sell each one at more than 12 pounds. Basically, my income has grown 400 percent.”



# Hayat training for onion farmers strengthens trust with exporters

Onion farmer Mohamed Zarif El-Sayed, 35, from the Sohagi village of Juhayna, says one of the most important aspects of the Hayat onion cultivation training is it helps build trust between the farmers, the merchants and the exporters. And it has encouraged farmers to introduce the red onion variety – which ripens earlier and is easier to market.

“There were factors preventing the export of onions,” Mohamed says, “even though Sohagi onions can be stored longer than onions produced elsewhere.

“And some of the cultivation practices of the farmers were producing split onions, or the onions were peeling, or they were blooming prematurely, or they were too green, or they were soggy, or their necks were too thick. Also, sometimes they harvested too early or too late.”

But that all changed with the Hayat training. Onion dealers are now snapping up the improved harvests at a record rate, and exports to Europe are rising.

The strengthened trust between onion farmers and buyers is also down to networking meetings organized by Hayat, bringing together the cultivators and the exporters. This has in turn helped the farmers understand the dynamics of market demand, and they’ve translated that knowledge into better deals with the exporters.



# Hayat training builds skills – and income – for local carpenters

Ahmed Mohamedein, a 33-year-old carpenter from Tahta, has seen the carpenters of Suez and Port Said at work. Of the streets of Ain Shams and Rowee'e in Cairo. And of Damietta.

“I saw ... the most skilled artisans,” he says. “And I saw machines that we have never seen before, here in Sohag, but I only acquired their skills and the ability to operate machines like that through the Hayat training.

“I learned how to use pressing machines. I learned modern techniques, and Italian assembly steps for furniture, and how to install the sill of a piece of furniture in an artistic way.”

Ahmed has been quick to translate the added skills into added income.

“I am proud that we produced almost 60 pieces of furniture, and we sold all of them to shops in Tahta – which made the rest of the carpenters here want to participate in similar training.”

Many of the traders who purchased the post-training items had in the past looked beyond Sohag for their needs.

The training also taught Ahmed the value of wood, and how to minimize waste.

“We learned from the artistic consultant who was responsible for the training how to draw a piece of furniture on paper first, then specify its measurements, and then draw it on wood before cutting it. This helped us achieve the maximum

use out of the wooden boards we buy.”

And the broader Hayat initiative to develop Sohag's carpentry industry has already helped the sector – and the carpenters' ambitions – expand.

Sohag furniture dealer Hajj Mohamed Ismail, 56, says: “One of the dealers who bought some of the newly-produced office furniture saved himself the effort and trouble of procuring similar items in Damietta. If he'd bought them there, they might have been damaged during transportation. This new cooperation with the carpenters in Tahta helps him ensure smooth production. And it eliminates the transportation costs for him and the consumer.”

The new situation also allows Tahta dealers to offer after-sale service, Hajj Mohamed adds, because if an item is defective they can return it to the maker right here in Tahta.

Sayyed Ali, 72, the head of the Tahta carpenters association, says: “I've been working in the carpentry field since the 1960s, and this is a real breakthrough. Until now, the city lacked carpenters with the skills to make the furniture the city needs.”

And the Hayat trust-strengthening initiatives have been key, too.

“Building confidence between traders and carpenters was one of the most important aspects of the Hayat training,” Sayyed declares.





# Hayat poultry development programme provides training to 400 women

Nadia Boutros, 41, from the village of Al-Sawaalim, has raised ducks for the last three years, to add to the income of her husband, who works at the central office of the state telephone company, and help meet household expenses.

But Nadia wasn't making much money, because many of the ducks kept dying, and any profit was eaten up by rent for the land on which she was raising them, and the cost of feed.

So she decided to attend a Hayat workshop on professional poultry raising, one of eight that together taught 400 Sohag girls and women how to properly feed, indeed how to set up professional home poultry units.

The course, simultaneously designed to help counter economic illiteracy, also taught participants how to read and write, where necessary, and how to apply basic accounting in notebooks.

And there was detailed instruction on the ducks themselves: the different types; the stages of fattening; the importance of healthcare; what diseases to look out for; and the importance of vaccinations.

The advice Nadia received in the workshop went beyond a narrow view of poultry, to look at the bigger picture. "The most important advice was about dealing with our children," Nadia says, "and the importance of paying attention to general cleanliness and health." Ultimately, though, the training paid off in the more focused sense too.

"It lowered the number of duck deaths, and this is reflected in my increased profits, which I'll be able to calculate and record properly in a notebook, too," says Nadia contentedly.

And it included the importance of professional marketing as well. Participants were urged to encourage local Internet-savvy youth to help pump up buyer interest.

Also, trainees were able to bring their children along, for whom there were drawing and coloring activities. "The Hayat poultry project aims to help women in Tahta and empower them economically," explains Abdullah Farid, one of the project's managers. "It's an attempt to improve living conditions and encourage girls and mothers to set up small businesses as well as develop their personal skills, teach them important values such as time management, and the best ways to solve problems, while encouraging them to communicate well and increase their self-confidence."

Instruction in computational skills, and how to implement a notebook system, he adds, is designed to help trainees do important calculations for their projects, such as costs and expenses, and average monthly profit. The coordinator of the project, Omar Riad, 37, says there's been a great turnout. And, he notes, the process doesn't end after the period of primary instruction

First, participants are trained for 40 days. Then, they are split into groups of five, overseen by a group leader, who helps them implement what they've learned, and lends a hand with the monthly book-keeping – which usually reflects the added value of the training.

One such female group leader, Hamdia Khedewi Mahmoud, 38, says she and her colleagues in similar roles constitute a link between the trainees and the trainers. "We identify people who are struggling," she explains, "people who need more effort and guidance. Our goal is always to increase confidence between the trainees and the trainer, to ensure that all the necessary information reaches the trainees. And we make files for each trainee with their data, and activities, their learnings, and how they are mirrored in their project."

The group leaders also provide guidance on the purchase of home poultry kits and of the ducks themselves.

Karima Ramadan Hafez, 59, confides she was in tears on the first day of training, because it was all a bit overwhelming. But the trainers helped her overcome her self-doubt and she's now so enamored of the course that she eagerly awaits the classes each week.

With her self-confidence, her ambitions have grown too. "I hope I can grow my home poultry business and turn it into a large farm," she says buoyantly.



# Hayat-certified pesticide applicator on a deeply-personal quest to improve public health



Growing up, Taher Fouad, 33, a young farmer from Tahta, recalls, he used to find empty pesticide cans everywhere at home.

His mother used them in the kitchen as jars in which to store food or spices. His father even used them to drink water out of, or tea and other hot drinks. Sometimes he'd use them as a makeshift bowl for his water-pipe.

And it wasn't just Taher's home. All the neighbors and other family members were doing it too.

Little did they know it was the reason cancer rates in the town were stubbornly high. "That's why I joined the training sessions conducted by Hayat," he states. "In order to raise awareness of pesticide risks, and the right way to spray crops and apply pesticides."

Taher is now a certified pesticide applicator. For him, safe spraying is personal.

"A year ago there was a tragic accident in the village," he says. "None of us can ever forget it. My cousin Muhammed went to his poultry farm to spray it, to eradicate a disease that had harmed his chickens, but he over-sprayed because

he didn't follow the correct procedures, and he suffocated along with his chickens."

Newly certified, Taher doesn't just spray crops. He's on a mission to enlighten.

"After the Hayat training, I have taken on a challenge, which is to convince farmers, especially elderly ones, to rely on professional pesticide applicators."

But he's also happy to now be a real, professional pesticide applicator himself.

"In the Hayat course, I learned how to classify the pests that affect the plants, and then choose the right pesticide to apply," he says. "I also learned how to distinguish between proper, and imitation, pesticides. And I learned about timing, when and how often to spray, and how to clean and look after the machines used for spraying."

That means he avoids common – and dangerous – mistakes.

"Farmers mix the pesticides with their hands before spraying, and they don't clean the machines after using them," Taher says. "That has an impact on their health and raises the risk of disease."

Additionally, when a new batch of pesticide mixes with remnants of an old batch, this can reduce quality, and render the spraying less efficient – endangering the plants.

Not everyone is easily convinced, though.

"This one farmer," Taher relates, bemused, "I tried to convince to use a professional pesticide applicator, but like many of the farmers, especially the older ones, he decided to do it himself. Well, he bought the pesticide from an untrustworthy trader, and because he hadn't learned how to identify authentic pesticides, the trader tricked him, and sold him fake cans that didn't meet the standard specifications. It didn't get rid of the weeds, but it damaged his crops."

Taher's accreditation is government-documented.

"Thanks to the Hayat project, my profession is now on my ID," he beams. "And I have become the first official pesticide applicator in Sohag."

More than 100 young farmers in Sohag have now received the training.







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